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IN THE SPECIFICATION:

In the Paragraph at Page 14, Line 3:

Per the above, the crimpable bicomponent fiber is heated by the HAK 31, hot air diffuser 33 or zoned TAB (not shown) in the first heating zone to a temperature where the polyethylene crystalline regions start to relax their oriented molecular chains and may begin melting. Typical air temperature used to induce crimp have ranged from about 110-260 degrees F. This temperature range represents temperatures of submelting degree which merely relax the molecular chain up through melting temperatures for the polymers. The heat of the air stream from the HAK 31 may be made higher due to the short dwell time of the fibers through its narrow heating zone. Further, when heat is applied to the oriented molecular chains of the fibers, the molecular chain mobility increases. Rather that than being oriented, the chains prefer to relax in a random state. Therefore, the chains bend and fold causing additional shrinkage. Heat to the web may be applied by hot air, IR lamp, microwave or any other heat source that can heat the semi-crystalline regions of the polyethylene to relaxation.

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In the Paragraph at Page 14, Line 17:

Then the web passes through a cool zone that reduces the temperature of the polymer below its crystallization temperature. Since polyethylene is a semi-crystalline material, the polyethylene chains recrystallize upon cooling causing the polyethylene to shrink. This shrinkage induces a force on one side of the side-by-side fiber that allows it to crimp or coil if there are no other major forces restricting the fibers from moving freely in any direction. By using the cold FDU, the fibers are constructed so that they do not crimp in a tight helical fashion normal for fibers processed through a normal hot FDU. Instead, the fibers more loosely and randomly crimp, thereby imparting more z-direction loft to the fibers. Referencing Figs. 6, there are shown fibers produced from a normal hot FDU exhibiting a typically tight crimp. By comparison, Fig. 7 shows fibers produced from an ambient non-heated FDU exhibiting a much more relaxed macroscopic crimp conducive to a high loft web.

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